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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/287,307 04/07/99 SPROCH

N 0268P0342

EXAMINER

TM02/1003

ANTONIO R. DURANDO  
2929 E. BROADWAY BLVD  
TUCSON AZ 85716

PHAN, T

ART UNIT

PAPER NUMBER

2123

DATE MAILED:

10/03/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/287,307**

Applicant(s)

**Norman K. Sproch**

Examiner

**Thai Phan**

Art Unit

**2123**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 02 20) ☐ Other:

### DETAILED ACTION

This Office Action is responsive for patent application S/N: 09/287,307. Claims 1-18 are pending in this official action.

#### *Drawings*

1. The drawings filed 04/07/99 are objected to by the draftsman (attached PTO Form 948).

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Stoughton et al., patent no. 5,965,352.

As per claim 1, Stoughton anticipated method and system for parametrically characterizing a three dimension protein or protein complex surface as claimed (see Abstract, "Background of the Invention"). According to Stoughton, the method includes steps of mixing protein molecule with molecule for interaction, performing spectroscopic analysis, including known electrospray

ionization mass spectrometry, for the mixed molecules, reaction paths, characterizing the molecule structure, and repeating such steps if necessary to obtain a good result of reaction for characterization ("Summary of the Invention", col. 12, lines 3-9, col. 15, line 54 to col. 16, line 8, col. 19, line 59 to col. 31, line 36).

As per claim 2, Stoughton anticipated computerized data processing system including plurality of means for performing steps as claimed (cols. 31 and 32, "Implementation Systems and Method"). Stoughton also anticipated simulating the model to predict error and to correct the model using feedback loop as claimed.

As per claims 3-6, Stoughton anticipated a variety of proteins and protein complex structures as claimed.

As per claims 7-18, due to the similarities of claims 7-18 to claims 1-6, and further, electrospray ionization mass spectrometry as known in the art would also require calculation of binding constant, heat of formation, heat of reaction, etc for predicting binding of molecules to a selected sites on the large molecule, claims 7-18 are thus rejected under the same rationales as set forth.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Patent no. 5,223,409, issued to Ladner et al., June 1993
2. Patent no. 5,504,327, issued to Sproch et al., Apr. 1996

3. Patent no. 5,915,230, issued to Berne et al., June 1999
4. Patent no. 6,269,312, issued to Mayo et al., July 2001
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Phan whose telephone number is (703) 305-3812.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-3900.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**

(703) 308-1396 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

September 27, 2001

  
KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER